SANTA CRUZ BIOTECHNOLOGY, INC.

JAGN1 (C-3): sc-515306

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The gene encoding JAGN1, a 183 amino acid protein, maps to human chromosome 3. Chromosome 3 is made up of about 214 million bases encoding over 1,100 genes. Notably, there is a chemokine receptor gene cluster and a variety of human cancer related loci on chromosome 3. Particular regions of the chromosome 3 short arm are deleted in many types of cancer cells. Key tumor suppressing genes on chromosome 3 encode apoptosis mediator RASSF1, cell migration regulator HYAL1 and angiogenesis suppressor SEMA3B. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. Mol. Biol. 37: 194-211.
3. Tsend-Ayush, E., et al. 2004. Plasticity of human chromosome 3 during primate evolution. Genomics 83: 193-202.
4. Yue, Y., et al. 2005. Comparative cytogenetics of human chromosome 3q21.3 reveals a hot spot for ectopic recombination in hominoid evolution. Genomics 85: 36-47.

CHROMOSOMAL LOCATION

Genetic locus: JAGN1 (human) mapping to 3p25.3; Jagn1 (mouse) mapping to 6 E3.

SOURCE

JAGN1 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 60-85 within an internal region of JAGN1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

JAGN1 (C-3) is available conjugated to agarose (sc-515306 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515306 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515306 PE), fluorescein (sc-515306 FITC), Alexa Fluor® 488 (sc-515306 AF488), Alexa Fluor® 546 (sc-515306 AF546), Alexa Fluor® 594 (sc-515306 AF594) or Alexa Fluor® 647 (sc-515306 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515306 AF680) or Alexa Fluor® 790 (sc-515306 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515306 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

JAGN1 (C-3) is recommended for detection of JAGN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for JAGN1 siRNA (h): sc-78313, JAGN1 siRNA (m): sc-146316, JAGN1 shRNA Plasmid (h): sc-78313-SH, JAGN1 shRNA Plasmid (m): sc-146316-SH, JAGN1 shRNA (h) Lentiviral Particles: sc-78313-V and JAGN1 shRNA (m) Lentiviral Particles: sc-146316-V.

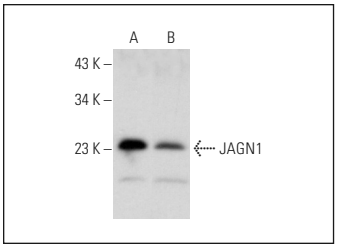
Molecular Weight of JAGN1: 21 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, PC-3 cell lysate: sc-2220 or MCF7 whole cell lysate: sc-2206.

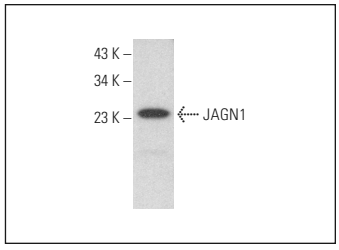
RRECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



JAGN1 (C-3): sc-515306. Western blot analysis of JAGN1 expression in MCF7 (**A**) and PC-3 (**B**) whole cell lysates.



JAGN1 (C-3): sc-515306. Western blot analysis of JAGN1 expression in C6 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Pham, K., et al. 2022. Comprehensive metabolic profiling of Myc-amplified medulloblastoma tumors reveals key dependencies on amino acid, tricarboxylic acid and hexosamine pathways. Cancers 14: 1311.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.